

## ATTACHMENT J5

# Bellows AFS Water Distribution System

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# J5 Bellows AFS Water Distribution System

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## J5.1 Bellows AFS Overview

Bellows AFS is located on the eastern coast of the Island of Oahu, approximately 30 miles east of Hickam AFS. As of April 1, 2003, the Station occupies 486.54 acres and contains approximately 104 buildings and other facilities with a total of approximately 133,999 square feet. The Station has a year-round staff of approximately 100 (both Air Force personnel and civilians), while up to 6,000 people use the Station for recreational purposes on a daily basis.

Bellows AFS is bordered to the north-northwest by the Keolu Hills, to the south-southwest by the Koolau Mountains, and to the east by Waimanalo Bay (the Pacific Ocean). Much of the Station is relatively flat, at an elevation of 25 feet or less above mean sea level, but the Station's northern and western extents include hills and ridgelines at elevations up to approximately 400 feet above mean sea level.

Bellows AFS was originally established in 1917 as the Waimanalo Military Reservation, and was renamed Bellows Field in 1933. Bellows Field was greatly expanded during World War II, after which it was transferred from the Army to the Air Force and redesignated Bellows AFS. From the late 1940s through the mid-1950s, the installation was used primarily as a military recreation area and for U.S. Marine Corps (USMC) field training exercises. These uses continue to the present. A communications relay complex was constructed in the late 1950s, whereupon the installation was redesignated Bellows AFS and its runways were closed. The operation and maintenance of this communications complex defined the primary mission of Bellows AFS through the mid-1990s, when its functions were transferred to other Air Force and Navy facilities in Hawaii. HIARNG relocated the Hawaii Military Academy from Fort Ruger to Bellows AFS in 1987. They just recently constructed a new facility on the Marine Corps land adjacent to Bellows AFS. Other non-Air Force tenants at the Station include the University of Hawaii (for its atmospheric testing research program) and the National Marine Fisheries Service and Montana State University (which conduct wildlife research).

Bellows AFS is currently operated by 15<sup>th</sup> Air Wing (AW), Detachment 1, 15th Mission Support Group. The installation is currently used primarily for military training exercises and military and civilian recreation. Nearly two-thirds of the installation is used for military training; USMC units train at Bellows AFS an average of 240 days per year. Bellows AFS also supports training exercises for Army and Navy units, and limited training for the State of Hawaii Department of Public Safety. The northern portion of the Bellows AFS beachfront is designated the "Bellows Recreation Center" and is restricted to use by active duty, reserve, guard, and retired military personnel and DoD civilian employees and their dependents and guests. This area is open throughout the year and is heavily used. The southern beachfront area, designated "Bellows Field Beach Park," is used for military

training on weekdays and is open for public use on weekends and holidays. More than 200,000 people use the Bellows AFS beaches each year.

Several new recreational facilities are planned for Bellows AFS during the next 5 years that will increase the total square footage of buildings and other facilities at the Station by approximately 6.0 percent.

## **J5.2 Water Distribution System Description**

### **J5.2.1 Water Distribution System Fixed Equipment Inventory**

The Bellows AFS water distribution system consists of all appurtenances physically connected to the distribution system from the point in which the distribution system enters the Installation and Government ownership currently starts to the point of demarcation, defined by the Right of Way. The system may include, but is not limited to, pipelines, valves, fire hydrants, storage facilities, exterior backflow devices, pumps, and meters. The actual inventory of items sold will be in the bill of sale at the time the system is transferred. The following description and inventory is included to provide the Contractor with a general understanding of the size and configuration of the distribution system. The Government makes no representation that the inventory is accurate. The Contractor shall base its proposal on site inspections, information in the technical library, other pertinent information, and to a lesser degree the following description and inventory. Under no circumstances shall the Contractor be entitled to any service charge adjustments based on the accuracy of the following description and inventory.

Specifically excluded from the water distribution system privatization are:

- Interior backflow preventers
- Irrigation systems

#### **J5.2.1.1 Description**

The original potable water distribution system at Bellows AFS was constructed in 1941. Additions and renewal and replacement projects have since modified the system. The current system includes two metered connections (6-inch and 12-inch) to mains of the Board of Water Supply of the City and County of Honolulu. The 6-inch connection is kept only as an emergency waterline back-up, therefore, only one metered connection remains active.

The Board of Water Supply currently supplies potable water to Bellows AFS from groundwater sources.

The water distribution system at Bellows AFS provides water service to approximately 65 buildings. Portions of the main distribution line were replaced in 1994 and 1999, and the work included the new 12-inch connection to the Board of Water Supply's main that replaced the existing 6-inch connection. Distribution pipeline sizes range up to 12 inches in diameter and are constructed of transite and cast iron (the older piping) and PVC (the newer piping). The average burial depth of piping at Bellows AFS is 3 feet below grade. Tracer wire is installed with the PVC pipe.

The water utility system at Bellows AFS is classified as a single service connection to a regulated public utility (the self-regulated Board of Water Supply of the City and County of Honolulu). Therefore, no permit is required for the system, operator certification is not required, and no regulatory issues apply to transfer of the system to a new owner. With regard to health and safety issues, the water quality of the system is regulated by HDOH's Safe Drinking Water Branch, and BioEnvironmental Engineering staff at Hickam AFB monitor the water quality at rotating sampling locations. The water quality is in compliance with HDOH standards, and no problems have been identified with water in the onsite distribution system or with the water provided by the Board of Water Supply.

### J5.2.1.2 Inventory

**Table 1** provides a general listing of the major water distribution system fixed assets for the Bellows AFS water distribution system included in the sale.

**TABLE 1**  
Fixed Inventory, Bellows AFS  
*Water Distribution System*

Item	Size (in.)	Quantity	Unit	Approximate Year of Construction
<b>PVC Pipe</b>				
	8	2,400	LF	1994
	12	5,000	LF	1999
<b>Ductile Iron Pipe</b>				
	1	630	LF	1941
	2	270	LF	1941
<b>Cast Iron Pipe</b>				
	2	1,300	LF	1941
	2.5	1,230	LF	1941
	3	1,300	LF	1941
	6	10,250	LF	1941
<b>Copper Pipe</b>				
	0.75	600	LF	1941
<b>Transite Pipe</b>				
	4	4,600	LF	1941
	6	3,000	LF	1941
	8	16,050	LF	1941

**TABLE 1**  
Fixed Inventory, Bellows AFS  
*Water Distribution System*

Item	Size (in.)	Quantity	Unit	Approximate Year of Construction
<b>Air Release Valves</b>				
(size estimated based on main)	4	5	EA	1941
	6	15	EA	1941
	8	21	EA	1941
	12	6	EA	1941
<b>Service Valves</b>	2	75	EA	1941
<b>Fire Hydrants</b>		25	EA	1998

Notes:

EA = each

in. = inches

LF = linear feet

PVC = polyvinyl chloride

### J5.2.2 Water Distribution System Non-Fixed Equipment and Specialized Tools

**Table 2** lists other ancillary equipment (spare parts) and **Table 3** lists specialized vehicles and tools included in the purchase. Offerors shall field verify all equipment, vehicles, and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment, vehicles, and tools.

**TABLE 2**  
Spare Parts  
*Water System Bellows AFS*

Qty	Item	Make/Model	Description	Remarks
There are no spare parts with the system to be privatized.				

**TABLE 3**  
Specialized Vehicles and Tools  
*Water Distribution System Bellows AFS*

Description	Quantity	Location	Maker
There are no specialized vehicles and tool with the system to be privatized.			

Description	Quantity	Location	Maker
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### J5.2.3 Water Distribution System Manuals, Drawings, and Records

Table 4 lists the manuals, drawings, and records that will be transferred with the system.

**TABLE 4**  
Manuals, Drawings, and Records  
*Water Distribution System Bellows AFS*

Qty	Item	Description	Remarks
1	Drawings	Bellows AFS Comprehensive Plan – Water Distribution System	

## J5.3 Specific Service Requirements

The service requirements for the Bellows AFS water distribution system are as defined in the Section C, *Description/Specifications/Work Statement*. The following requirements are specific to the Bellows AFS water distribution system and are in addition to those found in Section C. If there is a conflict between requirements described below and Section C, the requirements listed below take precedence over those found in Section C.

The service requirements for the Hickam AFB water distribution system are as defined in the Section C, *Description/Specifications/Work Statement*. The following requirements are specific to the Hickam AFB water distribution system and are in addition to those found in Section C. If there is a conflict between requirements described below and Section C, the requirements listed below take precedence over those found in Section C.

1. Contractor will not commence any activities until any required permits are formally approved (e.g., construction), and will immediately notify the Base of any contractor activity that may constitute a permit violation. Contractor will notify the Base and obtain the Base's prior approval for all new, modified, or decommissioned pollution sources or regulated activities on the installation used by contractor or its contractors. Examples include, but are not limited to, well closures, tank removals, and use of temporary sources such as generators.
2. Contractor will provide the Base, in advance and in a timely manner, any information that relates to contractor's activities that might have an impact upon the installation's air conformity status. Contractor will provide the Base with advance notice of any changes in operations or conditions that might result in increased air emissions in sufficient time to allow the Base to obtain any necessary permits, or permit modifications. Contractor will provide a timely and complete response to the Base's requests for information.
3. Contractor will immediately report all hazardous waste or hazardous material releases to the Base. Contractor will fully cooperate with any emergency response in accordance with the Base's plans and directives. Contractor is responsible for the remediation and

disposal of his hazardous wastes and hazardous material releases and the costs associated with such removal.

4. Contractor will participate in exercises conducted by the Base. These will be identified by Hickam AFB.
5. For all fines and penalties for which contractor is determined to be responsible and which are paid directly by the Base, contractor shall promptly transfer funds to the Base for payment of such fines or penalties. Reimbursable, as required, for payment of fines or penalties.
6. Contractor will coordinate and get approval (AF Form 103 Base Civil Engineering Work Clearance Request) from the Base before proceeding with any excavation.
7. Contractor will notify the Base Bioenvironmental Engineering of any water breaks, repairs, or replacement of the water system.
8. Contractor will be responsible for excavation/exposing water breaks near the mains to determine responsibility of repairs.
9. Contractor will notify the Base of any scheduled or unscheduled outages (water) . For scheduled outages the Contractor will notify all affected occupants/users, Civil Engineering and Public Affairs Office prior to proceeding. For unscheduled outages the contractor will provide an operational report in accordance to AFI 10-206/PACAFSUP1 and when practical, notify all affected occupants/users.
10. Contractor will provide alternate water source to affected facilities, if a water outage caused by a failure in Contractor's water system distribution system is greater than 8 hours.
11. Contractor will notify the Base (Security Forces, Medical Group, Fire Dept and Civil Engineering) of any road closures.
12. Contractor will be responsible for disconnecting Contractor's utilities for facilities to be demolished and insure no disruption of utilities to other adjacent facilities.
13. The Contractor will CC the base on all correspondence regarding environmental enforcement actions. The Contractor shall provide the Contracting Officer with a copy of any and all testing information and reports related to the water distribution system that are submitted to any agency.
14. Contractor shall contact the owner of the land through which Contractor's utility line passes through to establish an easement or right-of-way for any part of the utility system that is on Non-AF land.
15. Contractor shall furnish information of any undertaking involving ground disturbance or alterations to a building/structure to the Environmental Planning Office (15 CES/CEVP) in order for the Air Force to submit a Section 106 document to the Hawai'i State Historic Preservation Office. If historic resources are identified in the area, the grantee shall not remove or disturb, or cause or permit to be removed or disturbed, any historical, archaeological, architectural, or other cultural artifacts, relics, vestiges, remains, or objects of antiquity without an archaeological monitor or historic architect to

oversee such actions. Contractor shall pay for all historic preservation compliance issues associated with the undertaking, such as archaeological monitoring.

In the event such items are discovered inadvertently on the Premises without an archaeological monitor, Contractor shall cease its activities at the site (30 days for human remains) and immediately notify the Base Historic Preservation Officer and protect the site and the material from further disturbance until said officer gives clearance to proceed. Any costs resulting from this delay shall be the responsibility of Contractor .

## J5.4 Current Service Arrangement

Bellows AFS currently receives potable water (commodity supply) from the Board of Water Supply of the City and County of Honolulu. Water usage at Bellows AFS fluctuates greatly because of the widely varying population at the Station, which ranges from approximately 100 onsite staff to 6,000 recreational users. During 2002, the annual water consumption at Bellows AFS was approximately 27,631 kGals, with a maximum monthly consumption of 3,367 kGals during the month of October. The lowest monthly consumption for the year was approximately 958 kGals in April.

New recreational facilities are planned for Bellows AFS during the next 5 years that will increase the total square footage of buildings and other facilities at the Station by approximately 6.0 percent. However, the current system has adequate capacity to accommodate this future system demand.

## J5.5 Secondary Metering

### J5.5.1 Existing Secondary Meters

**Table 5** provides a listing of the existing (at the time of contract award) secondary meters that will be transferred to the Contractor. The Contractor shall provide meter readings for all secondary meters IAW Paragraph C.3.3 and J5.6 below.

**TABLE 5**  
Existing Secondary Meters  
*Water Distribution System Bellows AFS*

Meter Location	Meter Description (Type)
The government has no secondary meters to transfer with the system.	

### J5.5.2 Required New Secondary Meters

The Contractor shall install and calibrate new secondary meters as listed in **Table 6**. New secondary meters shall be installed IAW Paragraph C.13, Transition Plan. After installation, the Contractor shall maintain and read these meters IAW Paragraphs C.3.3 and J5.6 below.

**TABLE 6**  
 New Secondary Meters  
*Water Distribution System Bellows AFS*

Meter Location	Meter Description
The government does not require any new secondary meters.	

## J5.6 Monthly Submittals

The Contractor shall provide the Government monthly submittals for the following:

1. Invoice (IAW G.2). The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Invoices shall be submitted by the 25<sup>th</sup> of each month for the previous month. Invoices shall be submitted to:

*Name:* 15 CES/CERU  
*Address:* 75 H Street, Hickam AFB, HI 96853-5233  
*Phone number:* (808) 449-2628

2. Outage Report. The Contractor's monthly outage report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall be submitted by the 25<sup>th</sup> of each month for the previous month. Outage reports shall be submitted to:

*Name:* 15 CES/CERU  
*Address:* 75 H Street, Hickam AFB, HI 96853-5233  
*Phone number:* (808) 449-2628

## J5.7 Water Conservation Projects

IAW Paragraph C.3, Utility Service Requirement, the following projects have been implemented by the Government for conservation purposes.

None.

## J5.8 Service Area

IAW Paragraph C.4, Service Area, the service area is defined as all areas within the Bellow AFS boundaries and includes utility easements through lands owned by others: the United States Marines, GSA Fee Control lands and the state of Hawaii.

## J5.9 Off-Installation Sites

No off-installation sites are included in the sale of the Bellows AFS water distribution system.

## J5.10 Specific Transition Requirements

IAW Paragraph C.13, Transition Plan, **Table 7** provides a listing of service connections and disconnections required upon transfer.

**TABLE 7**  
Service Connections and Disconnections  
*Water Distribution System Bellows AFS*

Location	Description
There are no service connections or disconnections with the system to be privatized.	

## J5.11 Government Recognized System Deficiencies

**Table 8** provides a listing of system improvements that the Government has planned. The Government recognizes these improvement projects as representing current deficiencies associated with the Bellows AFS water distribution system. If the utility system is sold, the Government will not accomplish these planned improvements. The Contractor shall make a determination as to its actual need to accomplish and the timing of any and all such planned improvements. Capital upgrade projects shall be proposed through the Capital Upgrades and Renewal and Replacement Plan process and will be recovered through Schedule L-3. Renewal and Replacement projects will be recovered through Sub-CLIN AB.

Note: Further Project information will be in the Utilities Privatization Technical Library.

**TABLE 8**  
System Deficiencies  
*Water Distribution System Bellows AFS*

Project Number	Project Title, Description, and Remarks	Justification, Impact, and Remarks
BFMV 011044	Bellows AFS: Repair Waterline, BAFS	
	Replace approximately 2,500 LF of 8 inch waterline from Tinker Ave. to CE Compound Area.	Numerous waterline breaks have occurred.